

“How To” Manual  
for creating your own

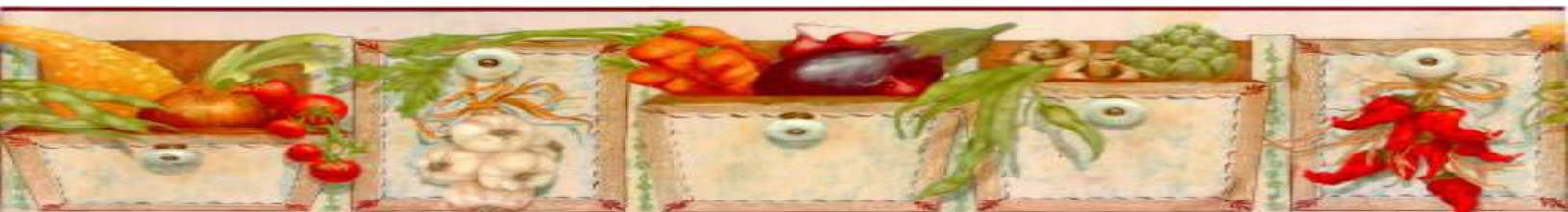
# “NUTRITION TO GROW ON” TOOLKIT



The “Nutrition to Grow On” Toolkit is a collaborative project between the County of San Diego Health and Human Services Agency’s *HealthLink North County* and the University of California Cooperative Extension’s Family Nutrition Program.



A School Health Initiative of the  
County of San Diego Health and Human Services Agency



## EXECUTIVE SUMMARY

The County of San Diego Board of Supervisors, under the leadership of Chairman Ron Roberts and District 3 Supervisor Pam Slater-Price, has led a “Call to Action” by engaging numerous sectors of the community to address childhood obesity. The County of San Diego’s Health and Human Services Agency (HHS) North Regions responded in numerous ways. One unique and collaborative activity was the **“Nutrition to Grow On” Toolkit Project**. Spearheaded by HealthLink North County, HHS North Regions’ school health collaborative, these important resources were provided to 21 school districts throughout the North County.

Each toolkit was created especially for school teachers to enable them to incorporate nutrition and gardening lessons into the school day to improve their students’ knowledge of and preference for healthy foods. The toolkit provides teachers with the tools and supplies needed to lead classroom-based gardening and nutrition activities based on the “Nutrition to Grow On” curriculum which includes lesson plans, overheads, classroom activities, and gardening instruction.

Provided by the University of California Cooperative Extension, “Nutrition to Grow On” is a standards-based curriculum developed for 4<sup>th</sup> through 6<sup>th</sup> grade students and includes nine educational lessons each containing a 60 minute nutrition lesson and a 30 minute gardening lesson that address the following subjects:

- Nutrition and Health
- Arts
- History
- Mathematics
- Environmental Studies
- Science

A pre-assembled toolkit is ready for use in the classroom and greatly reduces the amount of teacher preparation time needed to conduct the lessons. As the request for toolkits greatly outnumbered the number of toolkits that our funding permitted, we have produced this “How to” manual to enable districts or individual schools to replicate them. Tools and supplies are listed, including source, costs and special preparation activities such as laminations or assembly.

As we did with the original toolkit project, we recommend that you establish a check-out system for the toolkit in accordance with your school and/or district procedures. As part of that, we ask that teachers who use the toolkits fill out and return a brief evaluation form so that we may continue to improve the resources available to teachers.

We hope you find the “Nutrition to Grow On” Toolkit useful and supportive of your district’s Wellness Policy to promote health and wellness for your students. For questions about the toolkit project or this “How to” Manual, please contact Carey Riccitelli, HealthLink North County coordinator, at (760) 740-4130 or [carey.riccitelli@sdcounty.ca.gov](mailto:carey.riccitelli@sdcounty.ca.gov). Additional information and resources for the Toolkits can be found at [www.healthlinknorthcounty.org](http://www.healthlinknorthcounty.org).





# ***“NUTRITION TO GROW ON” TOOLKIT FOR 4<sup>TH</sup>-6<sup>TH</sup> GRADES***

Support the Goals of Your District’s Local School Wellness Policy by bringing Nutrition Education and Gardening Activities into your Classroom

“Nutrition to Grow On” Toolkit contains a standards-based curriculum addressing the following subjects:

- Nutrition and Health
- Arts
- History
- Mathematics
- Environmental Studies
- Science



**“Nutrition to Grow On” Toolkit: What is it?**

The toolkit is available for loan from your district. It contains the tools and supplies needed to create a classroom garden as well as the curriculum “Nutrition to Grow On” including lesson plans, overheads, classroom activities, and gardening instruction.



**Help your students discover:**

- Nutrients
- My Pyramid
- Serving Sizes
- Food Labels
- Physical Activity
- Goal Setting
- Consumerism
- Healthy Snacks
- Planting, maintaining, and harvesting their own vegetable garden



## **RESERVE YOUR TOOLKIT NOW!**

Contact your district office, wellness coordinator, or use the contact information below to locate your district’s toolkit.

Contact Information



Carey Riccitelli, MPH  
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Health and Human Services Agency North Regions  
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Mindy Swanson, MPH  
University of California Cooperative Extension  
Farm & Home Advisors Office  
5555 Overland Ave., Suite 4101 • San Diego, CA 92123  
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## **“Nutrition to Grow On” Toolkit**

### **WHAT:**

“Nutrition to Grow On” toolkits have been created to support upper elementary teachers’ efforts to teach nutrition and improve their students’ health. Each toolkit contains:

- The standards-based curriculum titled “Nutrition to Grow On” for 4<sup>th</sup> – 6<sup>th</sup> grades
  - 9 lessons each containing a 60-minute nutrition lesson and a 30-minute gardening activity
  - This curriculum teaches students about nutrition while taking them through the steps of planting, maintaining, and harvesting their own vegetable garden in the classroom.
- Nutrition activity supplies
- Gardening activity supplies
- Resources for additional education and gardening materials

### **WHO:**

- 21 school districts serving elementary school children in North County received a toolkit.
- Toolkits are available for loan to classroom teachers of 4<sup>th</sup>, 5<sup>th</sup>, & 6<sup>th</sup> grades who are interested in bringing standards-based nutrition education and gardening activities to their classrooms (teachers can implement any or all of the activities).
- The toolkits will provide teachers with the supplies needed to bring container gardening activities into their classrooms.
- Toolkits were developed in collaboration with HealthLink North County and the University of California Cooperative Extension.
- Free teacher training is available to qualifying schools.

### **WHY:**

- Incorporating nutrition education activities into the classroom can support the goals of your district’s Local Wellness Policy.
- The “Nutrition to Grow On” toolkits were created to promote the use of gardening in the classroom as an educational tool to improve students’ knowledge of and preference for healthy foods.
- Evaluation of this curriculum shows that by incorporating the gardening activities with the nutrition lessons, students’ nutrition knowledge and their preferences for vegetables improves.
- These toolkits will greatly reduce the amount of teacher preparation time needed to conduct the lessons and also serve as a support to teachers who may be unfamiliar with gardening or nutrition concepts.

**WHEN:** Toolkits were delivered to district wellness coordinators or their designee in March 2007. The toolkits are available for loan to teachers on a first-come, first-served basis.

**WHERE:** To locate and borrow the toolkit in your district, contact your district office, wellness coordinator or Carey Riccitelli by phone at (760) 740-4130 or by email at: [carey.riccitelli@sdcounty.ca.gov](mailto:carey.riccitelli@sdcounty.ca.gov).

Teachers borrowing the toolkit will be asked to:

- Sign a contract ensuring the kit is returned complete and in good condition
- Complete an evaluation form regarding their experiences with the toolkit and their students’ experiences with the activities
- Submit the completed evaluation form to be eligible to receive a special gift and additional classroom resources

## NUTRITION SUPPLIES FOR ONE TOOLKIT:

Nutrition		
Description	Source	Unit Price
Nutrition to Grow On Curriculum	<a href="http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001512">http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001512</a>	17.50
Binder-1 1/2" white cover	Corporate Express	4.05
One Pack of Card Stock	Corporate Express	11.21
Laminating sheets (30 needed)		12.00/50
Food group photos (14 pages = 28 cards)	Corporate Express <a href="http://www.healthlinknorthcounty.org">www.healthlinknorthcounty.org</a>	
Charades cards (1 page)	P. 18 of curriculum	
Activity Cards (3 pages)	P. 69-71 of curriculum	
Point Cards (1 page x4)	P. 92 of curriculum	
Food Label cards (8 pages)	<a href="http://www.healthlinknorthcounty.org">www.healthlinknorthcounty.org</a>	
Transparencies (24 needed)	Corporate Express	41.15
Sheet Protectors (27 needed)	Corporate Express	12.98/100
Compact Disc	Corporate Express	14.15/per 25
Softball or similar size ball	Target	2.99
		17.99/for
3 Dominoes (standard size)	YouAreGame.com	117
Cupcake wrapper	Target	0.84
Raisin box	Target	6/1.57
Measuring Cups	Target	3.99
Measuring Spoons	Target	2.99
Food Scale	Target	5.99
Rolling Crate	Costco	21.99
MyPyramid Poster	<a href="http://www.mypyramid.gov">www.mypyramid.gov</a>	Limited quantities for free or download free



**Food Scale**

## GARDENING SUPPLIES FOR ONE TOOLKIT:

Gardening Description	Source	Unit Price
Plastic Tarp (to cover "garden center" floor of classroom)	Target	6.99
Seed Starter	Home Depot	6.00
Seeds	<a href="http://www.america-the-beautiful.org/">http://www.america-the-beautiful.org/</a>	50 packets FREE for cost of ship/hand
Popsicle Sticks (1 per student per seed)	Corporate Express	3.35/per 1000
Permanent marker	Corporate Express	0.61
Spray Bottle	Corporate Express	4.56/per3
Quart Jar	Target	6/6.50
Small Dixie cup (2-3 oz size)	Corporate Express	3.89/per 100
Sheets-black construction paper	Target	6.99
Rubber Band	Corporate Express	.72/per 50
Hand trowels/shovels (around 5)	Home Depot	2.99

Estimated Total for complete "Nutrition to Grow On" Toolkit: \$220.00.



Seed Starter



Roller Crate



Popsicle Sticks

# ASSEMBLE YOUR OWN TOOLKIT!

The “Nutrition to Grow On” Toolkit is a great way to provide teachers with the tools and supplies needed to lead classroom-based gardening and nutrition activities based on the “Nutrition to Grow On” curriculum.

## CURRICULUM

The curriculum, “Nutrition to Grow On” was developed by Department of Nutrition at the University of California at Davis in collaboration with University of California Cooperative Extension. It is a standards-based curriculum geared toward 4<sup>th</sup>-6<sup>th</sup> grades students. The curriculum can be ordered through the California Department of Education. For more information please visit:

<http://www.cde.ca.gov/re/pn/rc/ap/pubdisplay.aspx?ID=001512>

### ➤ Transparencies

In order to make it easier and readily available for the teachers 24 pages of the curriculum were converted into transparencies and inserted into sheet protectors according to page. The page numbers are as follows:

- 19 – Plant Parts
- 20 – Crossword Puzzle
- 35 – Nutrient Sandwich
- 37 – Nutrient Word Search
- 54 – MyPyramid.gov
- 55 – Match the Food Groups
- 65 – Matching Serving Sizes
- 67 – Serving Scramble
- 72 – Common Weeds in California
- 91 – Food Label
- 93 – Food Label Activity Sheet
- 95 – Comparing Food Labels
- 107 – What is my pulse?
- 108 – Physical Activity Crossword Puzzle
- 121 – 5-A-Day at Hand
- 122 – Become More Physically Active
- 123 – Setting Goals
- 124 – My Seed
- 133 – How Companies Advertise
- 134 – Eat My Food
- 150 – Eating Foods from the Food Guide Pyramid
- 151 – Recipe Card (Fruit Smoothie)
- 152 – Recipe Card (Garden Pita Pockets)
- 153 – Recipe Card (Trail Mix)



➤ Laminated Cards

These pages with activities were copied onto cardstock, cut and laminated, then placed into sheet protectors according to page. The pages are as follows:

- 18 – Charades: What Our Bodies Need
- 69 – Activity Cards
- 92 – Point Cards

➤ Materials On-line

Some materials for the toolkit were created that can be downloaded from the County of San Diego's *HealthLink North County* website, printed on cardstock (trim as needed) and laminated. These "tools" include:

- Food Group Photographs
- Nutrition Facts (for the activity on page 92)

To download these materials for free, visit [www.healthlinknorthcounty.org](http://www.healthlinknorthcounty.org) and scroll to the "Nutrition to Grown On toolkit" section.

## **WORM HOTEL**

The Worm Hotel is an activity found in Lesson 2. Creating the worm hotel "sample" is optional, but it helps for demonstration purposes to show the students what their own Worm Hotel will look like. The following materials are needed to create the Worm Hotel:

- Quart Jar
- Black Construction Paper
- Rubber Band
- Dixie Cup
- Tape
- Hammer and nail

To make a sample Worm Hotel:

1. Open jar and place Dixie Cup upside down in bottom of jar
2. Wrap black paper around jar and secure with tape
3. Make sure light does not come in by securing top of the paper to the jar cap with a rubber band
4. Poke holes in the top of the jar lid with the hammer and nail



**Sample Worm Hotel**

## **TRAINING AVAILABLE TO QUALIFYING SCHOOLS**

Qualifying schools\* are eligible to receive free hands-on training on how to teach nutrition and start a classroom garden. The training is provided by the *Food Stamp Nutrition Education Program* administered by the University of California Cooperative Extension. The training session will guide teachers through the curriculum and introduce them to the activities. Teachers will receive assistance on how to plan and maintain their



gardens, which can range from several small containers to a dedicated plot of land on campus.

\* Qualifying schools are any school with >30% of students receiving free/reduced price lunch. School should contact the Garden/Nutrition Liaison at the San Diego County U.C. Cooperative Extension to see if their site qualifies.

## **DISTRICT LOAN AGREEMENT FORM**

If one toolkit is used for multiple teachers in one school or district, it is recommended that a “contract” be used to ensure the toolkit is returned complete and in good condition. A check-out procedure should be established in accordance with similar procedures for other school materials. A sample “Loan Agreement Form” is attached.

## **EVALUATION TOOLS**

Assessment is built into the curriculum. Nutrition quizzes are aligned with the objectives for each lesson. Pre- and post-tests are available to measure students’ changes in knowledge, behavior, and attitudes towards the nutrition topics presented.

Each teacher using the *Gardening and Nutrition Activities* curriculum and accompanying toolkit is asked to complete an evaluation form. The evaluation form will capture data regarding the teachers’ experiences with the toolkit and curriculum, demographic information about the students (age, gender, ethnicity), and the number of hours spent preparing and teaching the lessons. This valuable feedback will help with ongoing continuous improvement activities with the curriculum and related materials and activities.

An evaluation form is attached.

## **ADDITIONAL RESOURCES FOR GARDENING & SUPPLIES**

[www.kidsgardening.org](http://www.kidsgardening.org)

The award winning National Gardening Association's website offers a wealth of information for parents and teachers. "Digging Deeper" offers a Parent's Primer, classroom stories, gardening activities, and kids gardening FAQ's. The online store features children's gardening supplies for home or school. The Teacher's Room page offers classroom stories, activities, and advice.

[www.vivagarden.com](http://www.vivagarden.com)

This site offers herb and vegetable cultural information, ideas, tips, recipes, containers, and FAQ's. Their link with NGA provides information on growing herbs and vegetables with an emphasis on gardening for children.

[www.cfaitc.org](http://www.cfaitc.org)

The California Foundation for Agriculture in the Classroom works with K-12 teachers and students to enhance education using agricultural examples. Their website offers lesson plans, student activities, resources, and a calendar of events to highlight the importance of agriculture in our daily lives.

[www.ahs.org](http://www.ahs.org)

At the American Horticultural Society connects you to great gardens around the world, gardening education for all levels of skill, sources of information on any garden subject imaginable, a community of gardeners eager to share their experiences, other great gardening events and activities, and much, much more.

[www.mastergardenerssandiego.org](http://www.mastergardenerssandiego.org)

The Master Gardener Association of San Diego County School Garden Committee encourages and assists teachers in starting and maintaining gardens at their respective schools. Today, our membership has over 60 Master Gardeners who will act as school consultants in their geographic residential areas. These Master Gardeners work with teachers and parents to advise and assist children with their garden projects. Submit a request for a school garden consultation.

[www.mastergardenerssandiego.org/plantaseed/index.html](http://www.mastergardenerssandiego.org/plantaseed/index.html)

This web guide was developed by the Master Gardener Association of San Diego County. This interactive, online resource guide offers information on getting a garden started, selecting the garden site, garden design, accessibility, weeds, building the beds, soil management, composting, planting the garden, specialty gardens, specialty structures, pests & disease management, integrating the garden into your curriculum, maintenance, and school garden references.

## **Resources for Gardening Supplies**

### **Seeds:**

America the Beautiful Fund: <http://www.america-the-beautiful.org/>. A non-profit group receives seed donations from major seed companies. Sets of 50 packets of vegetables, flowers and herbs are available for the cost of postage and handling.

### **Compost and Vermicomposting:**

Only certain species of worms (red wigglers or manure worms) can be used to digest decomposing material. They are not the usual earthworms. The earthworms usually found in garden soil are long lived, but do not multiply fast enough to use in a worm bin.

- *Solana Cente*: <http://www.solanacenter.org/1county.htm>  
Free compost and worm bins for schools, compost demonstrations sites, and gardening workshops for School Gardens in San Diego's Unincorporated County.
- *Sharon's Worm World, Ramona, CA*, (760) 788-4423. Specializing in quality organically grown earthworms and castings for your garden, plants, lawns, fruit trees, and composting. Products available include a bag of worms, worm beds, and vermicomposting bins.
- *Vermicoast, Carlsbad, CA*, (760) 434-4223, [shelleyvermicoast@adelphia.net](mailto:shelleyvermicoast@adelphia.net).  
Red wriggler worms & worm castings available for sale.
- [www.ProjectCompost.ucdavis.edu](http://www.ProjectCompost.ucdavis.edu)
- *El Corazon, North County Compost*, 300 1/2 Mission Blvd. Oceanside, CA 92054, (760) 439-9920. May give free compost to school gardens. In most cases, you have to pick it up.

### **Containers:**

- Ask your students to collect empty milk cartons, water bottles, etc. to be used as small garden containers. A variety of sizes can be used.
- Contact your local nursery or landscape company for donations of new/used 1-gallon or 5-gallon plant containers.

### **Butterfly Resources:**

- National Wildlife Federation –  
Attracting Butterflies: <http://www.nwf.org/backyard/butterflies.cfm>



Sample

District Letterhead

**“Nutrition to Grow On” Toolkit  
Materials on Loan Agreement Form**

Thank you for implementing nutrition education in your classroom! This “Nutrition to Grow On” toolkit is provided to assist your nutrition education efforts. *Please read and sign the following agreement.*

I, \_\_\_\_\_, agree to borrow the “Nutrition to Grow On” toolkit. I am responsible for ensuring all items as listed on the inventory sheet are returned in excellent condition. I agree to repair or replace any damaged or lost items.

I will pick up the toolkit on \_\_\_\_\_ and will return it on \_\_\_\_\_.

I agree to submit a completed evaluation form when I return the toolkit.

Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Phone Number \_\_\_\_\_

School/Site \_\_\_\_\_

## **“Nutrition to Grow On” Toolkit Teacher Evaluation**

Thank you for using the “Nutrition to Grow On” toolkit. Please answer the following questions about your experience with the toolkit.

**Name:** \_\_\_\_\_ **Grade:** \_\_\_\_\_ **Number of students:** \_\_\_\_\_

**School:** \_\_\_\_\_ **District:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

*Please circle the activities you conducted:*

	<u>Nutrition Activity</u>		<u>Gardening Activity</u>	
Lesson 1: Introduction to Nutrition & Gardening _____	Y	N	Y	N
Lesson 2: Nutrients We Need _____	Y	N	Y	N
Lesson 3: My Pyramid _____	Y	N	Y	N
Lesson 4: Serving Sizes _____	Y	N	Y	N
Lesson 5: Food Labels _____	Y	N	Y	N
Lesson 6: Get Physically Active _____	Y	N	Y	N
Lesson 7: Goal Setting _____	Y	N	Y	N
Lesson 8: Consumerism _____	Y	N	Y	N
Lesson 9: Making Healthful Snacks _____	Y	N	Y	N

*As a result of this curriculum students...*

	<u>Disagree</u>				<u>Agree</u>
1. Made healthier food choices	1	2	3	4	5
2. Developed positive attitudes toward food, good health, and nutrition	1	2	3	4	5
3. Improved their interest in nutrition	1	2	3	4	5
4. Improved their interest in gardening	1	2	3	4	5

*Please estimate the total number of hours you spent teaching the activities:* \_\_\_\_\_ hours

*Please estimate the total number of hours you spent preparing the activities:* \_\_\_\_\_ hours

*How did you hear about the toolkit?* \_\_\_\_\_

*Were the supplies in the toolkit useful?* Yes No

*If no, how can the toolkit be more useful?* \_\_\_\_\_

*Would you like to use the toolkit again?* Yes No

*Additional comments or suggestions:* \_\_\_\_\_

***Thank you for completing this evaluation! Your feedback is important to us. You are eligible to receive a free gift and additional classroom gardening/nutrition resources upon receipt of your completed evaluation. Please fax to Mindy Swanson, Gardening Liaison, at (858) 694-2849.***